



Indiana Department of Environmental Management

2001 Annual Compliance Report

for Indiana Public Water Supply Systems

IDEM Drinking Water Branch

June 2002

Introduction

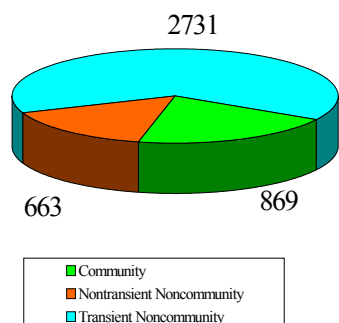
The 1996 Amendments to the Safe Drinking Water Act require each state to prepare an annual report of violations of the national primary drinking water regulations for public water supplies. The annual reports are intended to provide a summary of violations of maximum contaminant levels (MCL's), treatment techniques, variances and exemptions¹, and monitoring and reporting violations (M&R). This report includes information for the time period January 1, 2001 through December 31, 2001.

Public Water Supply Information

There are approximately 4,322 active public water supplies in Indiana. Graph 1 shows the distribution of public water systems by the system type. Drinking water in Indiana comes from ground water sources via wells or surface water systems such as lakes and rivers. Some public water systems purchase water from other public water supplies and distribute the water to their customers. Ninety-six percent (96%) of all public water systems are served by ground water systems. However, only fifty-three percent (52%) of the total population is served by systems utilizing ground water.

Drinking Water Monitoring Requirements

Graph 1. Number and Type of Public Water Systems in Indiana



¹ IDEM did not issue any variances or exemptions in 2001, therefore there are no violations for variances and exemptions to address in this summary report.

The Safe Drinking Water Act and the Indiana Public Water Supply Supervision Program mandate the monitoring and reporting of various bacteriological and chemical contaminants that may be found in drinking water. The contaminants are categorized as total coliform, nitrate (NO₃), inorganic chemicals (IOCs), volatile organic compounds (VOCs), synthetic organic compounds (SOCs), radionuclides (Rads), lead and copper (Pb/Cu), and total trihalomethanes (TTHMs). The levels of these contaminants in drinking water are compared to maximum contaminant levels (MCLs) which are set by the Environmental Protection Agency (EPA) and the State, to ensure that water is safe for human consumption. See Table 2 on the back page for a list of MCLs and action levels for all of the regulated contaminants.

Surface water systems are also required to comply with the provisions of the Surface Water Treatment Rule (SWTR). This rule establishes regulations pertaining to treatment techniques that require systems to properly treat their water. If a PWS fails to properly treat its water or cannot control the levels of such contaminants as turbidity, bacteria, viruses, or parasitic microorganisms the system has violated the provisions of the Safe Drinking Water Act and is assigned a Treatment technique (TT) violation.

Compliance Summary

Table 1 provides a summary of the number of MCL, M&R, and TT violations for all of the regulated drinking water contaminants for the 2001 calendar year (January 1, 2001-December 31, 2001). The table also provides a summary of the number of systems in violation for each contaminant group. Every effort has been made to tabulate the total number of systems in violation without double counting a system if it has more than one violation across contaminant groups.

In 2001, 93% of community and nontransient noncommunity water systems met all drinking water health standards. Total coliform bacteria was the most common contaminant found in the noncompliant systems. 91% of the systems that violated drinking water standards violated the total coliform standards. Compliance with the health standards has remained consistent even though new mandates or requirements have increased since 1997. Some of the new mandates or requirements include consumer confidence report rule, lead and copper

Table 1. 2001 Violations Summary for Indiana Public Water Supplies

		MCL		Treatment Technique		Monitoring & Reporting		Consumer Confidence	
		Violations	Systems In Violation	Violations	Systems in Violation	Violations	Systems In Violation	Violations	Systems in violation
CCR	CWS							168	118
Pb/Cu	CWS			13	13	86	66		
	NTNC			18	17	66	61		
SWTR	CWS			5	3	2	1		
	NTNC			1	1	0	0		
	TNC			0	0	0	0		
VOC	CWS	0	0			485	22		
	NTNC	1	1			1029	44		
IOC	CWS	20	5			132	48		
	NTNC	2	2			216	59		
	TNC	1	1			338	338		
SOC	CWS	0	0			1515	74		
	NTNC	0	0			1266	58		
TCR	CWS	72	62			276	149		
	NTNC	52	45			240	171		
	TNC	229	202			2188	1282		
Rads	CWS	9	2			0	0		
Totals	CWS	101	68	18	16	2496	293	168	118
	NTNC	55	47	19	18	2817	275	0	0
	TNC	230	203	0	0	2526	1328	0	0

Total Number of Systems in Violation	CWS	340
	NTNC	303
	TNC	1452
	Total	2095

Total Number Of Violations	CWS	2783
	NTNC	2891
	TNC	2756
	Total	8430

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MCL =Maximum Contaminant Level Violation	SWTR =Surface Water Treatment Rule	VOC =Volatile Organic Compounds (21 Chemicals)	NO3 =Nitrate
Pb/Cu =Lead and Copper	SOC =Synthetic Organic Compounds (27-30 Chemicals)	TNC =Transient Noncommunity	Rads =Radionuclides
IOC =Inorganic Chemicals (10-12 Chemicals)	TTHM =Total Trihalomethanes	CWS =Community Water System	
TCR =Total Coliform Rule	NTNC =Nontransient Noncommunity Water System	CCR =Consumer Confidence Report	

revision rule, modified public notification rule, enhanced surface water rule, disinfection and disinfectant byproduct rule, well head protection program, and, source water assessment program. More new mandates are forthcoming such as arsenic rule, radon and radionuclide rule, groundwater rule, LT1 and LT2 enhanced surface water treatment rule, and, Stage 2 disinfection and disinfectant byproduct rule.

The percentages of public water systems that failed to comply with the monitoring and reporting requirements have consistently been 43%. The majority of these systems are serving population less than 100 people who are engaged in businesses other than water supply. Examples of these businesses are restaurants, motels or churches. To improve the compliance for these businesses, IDEM entered into an agreement with the Indiana State Department of Health Laboratory to analyze total coliform and nitrate samples annually beginning in July 2002 at no costs to the systems. The goal is to reach at least a 90% compliance rate for monitoring and reporting requirements.

Compliance Improvement Efforts

The Drinking Water Branch utilized several tools in improving compliance efforts:

- Reminder letters – these letters are sent to systems at least 1 month prior to the end of each reporting requirements,
- Violation letters – these letters are sent within 1 day of identifying the violations. Field Staff is notified of the violation for follow-up,
- Formal enforcement – referral for formal enforcement is made when systems failed to comply after exhausting informal enforcement actions or in the event of a serious violation,
- Compliance and Technical Assistance – systems are contacted by both Compliance and Inspection Staff to offer the assistance in achieving compliance in the quickest possible efforts. Site visit and follow-up are made when systems violated health standards,
- Workshops and Presentations – Routine presentations are made to drinking water association meetings and conferences to discuss new rules and requirements
- Hand-out materials – Fact sheets, rules and workbooks are provided to systems routinely.
- Sampling schedules – spreadsheet showing the annual sampling schedules for each systems are sent routinely and upon request when system change ownership or person in charge

Following is a summary of the number of site visits that were conducted in 2001 by the Inspection Section staff:

Well Site Surveys	58
Technical Assistance Visits	479
MCL Follow-Up Visits	207

Furthermore, in 2002, The State will be utilizing additional funds available from the federal government to provide technical assistance for small public water systems. Technical contractors will be used to provide additional education, guidance and on-site assistance to small systems to improve compliance and promote a better understanding of the drinking water regulations.

Consumer Confidence Reports

All community public water systems are required to develop and distribute to their customers a brief annual water quality report, called a consumer confidence report (CCR). The community water system is required to deliver a copy of the CCR to its consumers by July 1st. The purpose of the report is to inform and educate customers on the status and quality of their public water supply. The report contains information on the sources of drinking water, the levels of any detected contaminants, and educational information regarding drinking water.

For More Information

If you have any questions concerning this report or would like the lists of public water supplies that have had violations in 2001, please contact the Drinking Water Branch at (317) 308-3280. Additional copies of this report are available on the Indiana Department of Environmental Management, Office of Water Management, Drinking Water Branch web-site at <http://www.in.gov/idem/water/dwb/compliance/> or by contacting the Drinking Water Branch at (317) 308-3280.

Additional information regarding the quality of your drinking water may be obtained by contacting your local public water supplier. Please contact your local public water supply for a copy of the latest consumer confidence report (CCR) for your public water system.

For more information regarding all aspects of the environment in Indiana, IDEM publishes an annual State of the Environment Report. Copies of the report are available via the internet at <http://www.in.gov/idem/soe2002/index.html>, or by calling (800) 451-6027 ext. 3-1044. Also, for general information regarding drinking water you may contact the EPA Safe Drinking Water Hotline by calling (800) 426-4791.

TABLE 2
REGULATED CHEMICAL DRINKING WATER CONTAMINANTS
MAXIMUM CONTAMINANT LEVELS

Contaminant	MCL	Contaminant	MCL	Contaminant	MCL
Inorganic Chemicals (IOCs)	mg/l	Volatile Organic Compounds (VOCs)	ug/l	Synthetic Organic Compounds (SOCs)	ug/l
Antimony	0.006	1,1-Dichloroethylene	7	2,4-D	70
Arsenic	0.05	1,1,1-Trichloroethane	200	2,4,5-TP (Silvex)	50
Barium	2	1,1,2-Trichloroethane	5	Alachlor	2
Beryllium	0.004	1,2-Dichloroethane	5	Atrazine	3
Cadmium	0.005	1,2-Dichloropropane	5	Benzo(a)pyrene	0.2
Chromium	0.1	1,2,4-Trichlorobenzene	70	Carbofuran	40
Cyanide (free)	0.2	Benzene	5	Chlordane	2
Fluoride (Adjusted) *	2	Carbon Tetrachloride	5	Dalapon	200
Fluoride (Natural) *	4	Cis-1,2-Dichloroethylene	70	Di(2-ethylhexyl)adipate	400
Mercury	0.002	Dichloromethane	5	Di(2-ethylhexyl)phthalate	6
Nickel	---	Ethylbenzene	700	Dibromochloropropane (DBCP)	0.2
Selenium	0.05	Monochlorobenzene	100	Dinoseb	7
Thallium	0.002	o-Dichlorobenzene	600	Dioxin (2,3,7,8-TCDD)	3X10 ⁻⁵
Nitrate	10	p-Dichlorobenzene	75	Diquat	20
Nitrite	1	Styrene	100	Endothall	100
Total Nitrate & Nitrite	10	Tetrachloroethylene	5	Endrin	2
		Toluene	1000	Ethylene Dibromide (EDB)	0.05
Sodium *	No MCL	Trans-1,2-Dichloroethylene	100	Glyphosate	700
		Trichloroethylene	5	Heptachlor	0.4
Asbestos		Vinyl Chloride	2	Heptachlor epoxide	0.2
Asbestos	7 MFL**	Xylenes (total)	10,000	Hexachlorobenzene	1
				Hexachlorocyclopentadiene	50
				Lindane	0.2
		Total Trihalomethanes **** (for systems >10,000)	100	Methoxychlor	40
Lead & Copper				Oxamyl (Vydate)	200
Lead Action Level	0.015			PCBs	0.5
Copper Action Level	1.3			Pentachlorophenol	1
				Picloram	500
Radionuclides *	PCi/l			Simazine	4
Gross Alpha	15			Toxaphene	3
Gross Alpha Action Level	5				
Radium-226 Action Level	3				
Radium-226 & Radium-228 (combined)	5				
Manmade	***				

* Community Water Systems Only

** MFL=million fibers/liter > 10 micron

*** The average annual concentration of beta particle and photon radioactivity from manmade radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four (4) millirem per year.

**** The sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform), and trichloromethane (chloroform).